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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,787	12/17/2001	Ho Fan Jang	10326-71US KPM/en	4428
20988	7590	11/21/2003	EXAMINER	
OGILVY RENAULT 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			LAUCHMAN, LAYLA G	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/015,787

Applicant(s)

JANG, HO FAN

Examiner

L. G. Lauchman

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,8-12 and 16 is/are rejected.
- 7) ☐ Claim(s) 2-7 and 13-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Jeffers et al (US 5,486,915).

As to Claim 1, Patent '915 teaches a method of determining a chemical parameter of wood pulp comprising:

a) applying excitation light at least one predetermined wavelength to pulp , to produce fluorescence emission light from individual fiber particles of said pulp (see abstract, col. 4, lines 3-10, and col.6, lines 14-29);

b) detecting fluorescence intensity of said fluorescence emission light, for each said predetermined wavelength (see abstract and col.6, lines 14-29);

c) determining a chemical parameter of individual fiber particles of the wood pulp from said fluorescence intensities (see abstract, col.5, lines 35-40).

As to Claim 12, Patent '915 teaches an apparatus for determining a chemical parameter of wood pulp comprising (See Fig. 4):

i) means to excitation light at least one predetermined wavelength to pulp , to produce fluorescence emission light from individual fiber particles of said pulp (see abstract, col. 4, lines 3-10, and col.6, lines 14-29);

ii) detection means for detecting fluorescence intensity of said fluorescence emission light, for each said predetermined wavelength (see abstract and col.6, lines 14-29);

iii) means for determining a chemical parameter of individual fiber particles of the wood pulp from said fluorescence intensities (see abstract, col.5, lines 35-40).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-11,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al (US 5,486,915) as applied to Claims 1 and 12 above, in view of Cantrall et al (US 6,202,493).

As to Claim 8, Patent ' 915 teaches everything as applied to Claim 1 above. Jeffers et al do not specifically disclose applying excitation light at least one predetermined wavelength band, however, they do disclose determining a chemical parameter of individual fiber particles of the wood pulp from a ratio of fluorescence intensities detected in step b) of Claim 1 (see col. 7, lines 57-67, col. 8, lines 1-3).

Patent '493 to Cantrall et al teaches methods and apparatus for determining a parameter of an object. The parameter may be a chemical composition (see col. 8, lines 37-44), and the object may be wood (see col. 6, lines 57-67, and col. 7, lines 1-26). Cantrall et al disclose that the excitation light may be at a predetermined waveband length (see co. 8, lines 44-53, col. 9, lines 6-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the device of Jeffers et al with the excitation light source emitting light at at least one predetermined wavelength band as taught by Cantrall et al, since Jeffers suggests that any excitation source could be applied, as long as it provides measurable fluorescence intensity (see col. 9, lines 8-18), and the apparatus of Cantrall et al measures fluorescence (see col. 8, line 39, patent '493).

As to Claim 9, Patents ' 915 and '493 teach everything as applied to Claim 8 above, and in addition Jeffers et al disclose that the chemical parameter is lignin content.

As to Claim 10, Patents ' 915 and '493 teach everything as applied to Claim 8 above, and in addition Jeffers et al disclose that the chemical parameter is Kappa number (col. 5, lines 59-60).

As to Claim 11, Patents ' 915 and '493 teach everything as applied to Claim 8 above, and in addition Jeffers et al disclose that the ration of fluorescence intensity is generated from a long versus short wavelength barrier (col. 5, lines 61-67, and col. 7, lines 62-66).

As to Claim 16, Patents ' 915 and '493 teach everything as applied to Claim 12 above, and in addition Jeffers et al disclose that the detection means comprise long and wavelength filters 155 and means for developing a ratio of the fluorescence intensities at long and short wavelength filters, or by the intensities at long and short wavelength regions in the fluorescence spectra (see col. 7, lines 61-67), as a measure of lignin content or Kappa number (see col. 8, lines 1-21).

***Allowable Subject Matter***

Claims 2-7, 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As to Claim 2, the prior art of record taken along or in combination, fails to disclose or render obvious determining a physical parameter of individual fiber particles of the wood pulp from said fluorescence intensities, in combination with the rest of the limitations of claim 1 .

As to Claims 5, 6, and 7, the prior art of record taken along or in combination, fails to disclose or render obvious determining a fiber thickness, cross-sectional area, and fiber coarseness of individual fiber particles of the wood pulp from said fluorescence intensities, in combination with the rest of the limitations of claim 1.

As to Claim 13, the prior art of record taken along or in combination, fails to disclose or render obvious determining a physical parameter of individual fiber particles of the wood pulp from said fluorescence intensities, in combination with the rest of the limitations of claim 12.

### ***Conclusion***

Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to TC 2877 via the PTO Fax Center located in CP4-4C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Center number is (703) 872-9306.

If the Applicant wishes to send a Fax dealing with either a Proposed Amendment or for discussion for a phone interview then the fax should:

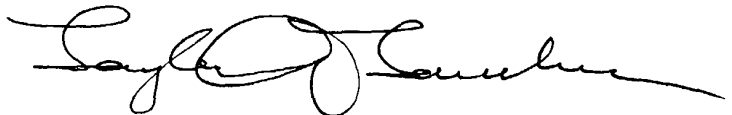
a) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and

b) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. G. Lauchman whose telephone number is (703) 305-0071.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC receptionist whose telephone number is (703) 308-0956.



L. G. Lauchman  
Patent Examiner  
Art Unit 2877  
11/16/03/lgl